

Notice of Allowability

Application No.

10/676,893

Examiner

Binh C. Tat

Applicant(s)

RUSHING ET AL.

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 04/04/07.
2. ☒ The allowed claim(s) is/are 1-3, 7-12, 15-18 and 20-25.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 06/14/07.

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____


JACK CHIANG
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Cindy Faatz (Reg. No. 39973) on 06/14/07.

The application has been amended as follow:

Claim 1 line 3, deleted "and".

Claim 1 line 7, after "layout"; insertion: --; representing information indicating connectivity between a selected vector and at least one of another vector and interface pins; providing drag and drop editing capabilities to move a vector, wherein, each vector includes a plurality of cell instances, and wherein, providing drag and drop editing capabilities includes providing drag and drop editing capabilities to move a group of cell instances; and providing an output capable of being used by a placement engine to produce an associated placement --.

Claims 4-6 have been canceled.

Claim 7 line 3, after "circuit"; insertion: --datapath--.

Claim 7 line 6, after "vectors"; insertion: --, the vector editor further to visually represent connectivity information indicating connections between a vector and one of another vector and an interface pin, the graphical interface further to provide drag and drop editing capabilities to

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move one or more of vectors, bit slices and connections, the vector editor to provide an output that is capable of being used by a placement engine to produce an associated placement --.

Claims 13-14 have been canceled.

Claim 15 line 1 change "claim 14" to --claim 12--.

Claim 18 line 4, deleted "and".

Claim 18 line 8, after "layout"; insertion: --; represent connectivity between a vector and one of another vector and an interface pin; provide drag and drop editing capabilities to move a vector; and provide an output that is capable of being used by a placement engine to produce an associated placement--.

Claim 19 has been canceled.

Claim 20 line 1 change "claim 19" to --claim 18--.

Claim 23 line 8, after "vectors"; insertion: --, the vector editor to represent connectivity between a vector and one of another vector and an interface pin, the vector editor to provide drag and drop editing capabilities to edit the vectors, bit slices and associated connectivity--.

Claim 26 has been canceled.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

Claims 1-3, 7-12, 15-18, and 20-25 are allowed because the prior art does not teach or suggest a method comprising: representing each vector associated with an integrated circuit datapath design as one of a row and a column in a graphical interface; representing each bit slice associated with the integrated circuit datapath design in an orthogonal manner to the vectors in the graphical interface, the corresponding vector and bit slice representation in the graphical interface being different than an associated physical layout; representing information indicating connectivity between a selected vector and at least one of another vector and interface pins; providing drag and drop editing capabilities to move a vector, wherein, providing drag and drop editing capabilities includes providing drag and drop editing capabilities to move a group of cell instances; and providing an output capable of being used by a placement engine to produce an associated placement and with the combination of all other features corresponding to the independent claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh C. Tat whose telephone number is 571 272-1908. The examiner can normally be reached on 7:30 - 4:00 (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on 571 272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tat Binh

Patent Examiner

June 21, 2007


JACK CHIANG
SUPERVISORY PATENT EXAMINER